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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,260	08/30/2000	Jong Sang Baek	8733.A285	1251
30827	7590	09/14/2005	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			NGUYEN, KIMNHUNG T	
			ART UNIT	PAPER NUMBER
			2677	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/651,260	BAEK, JONG SANG	
Examiner	Art Unit		
Kimnhung Nguyen	2677		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 05 July 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-3 and 6-8 is/are rejected.  
7)  Claim(s) 4,5,9 and 10 is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date .

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_\_

## DETAILED ACTION

This Application has been examined. The claims 1-10 are pending. The examination results are as following.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shyu et al. (US 5,486,868).

Regarding claim 1, Shyu et al. discloses in fig. 1, a display mode system with a multi-timing controller comprising a display standard (see video scan modes, fig. 2); an interface receiving a timing data inputted from the exterior thereof and a control signal corresponding to the display standard; a timing controller (10) for latching and outputting the timing data inputted from the interface, and for generating and outputting timing signals for driving based on the control signal (121); and a driving circuit (fig. 1) for receiving the timing signals outputted from the timing controller to display a picture corresponding to the display standard, wherein the timing controller (10) includes a decoder (12) and a timing generator (13), wherein timing generation information corresponding to a plurality of display standards is stored by the decoder (see col. 2, lines 54-60), wherein the decoder (12) may output to the timing generator, timing

information corresponding to the timing data, and wherein timing generator outputs timing signals corresponding to the timing information and the control signal (see col.3, lines 5-20). However, Shyu et al. does not disclose that the display device is a liquid crystal display. It would have been obvious to one of ordinary skill in the art at the time the invention to have the display mode could associate with the display device is a liquid crystal display, because the liquid crystal display is well known and commonly employed in the industry.

Regarding claim 2, Shyu et al. discloses that the display device further comprising a dip switch (see pixel clock131) for selecting the timing data corresponding to the display standard.

Regarding claim 3, Shyu et al. discloses that the decoder (12) consist of a memory for storing a certain timing information and a multiplexor (MUX 19) for selecting any of the timing information stored in the memory (see col. 2, lines 54-60).

Regarding claim 6, Shyu et al. discloses the display standard is selected from VGA (see display mode of fig. 2).

Regarding claim 7, Shyu et al. discloses in fig. 1, a multi-timing controller, comprising a decoder (12) for storing timing generation information corresponding to a plurality of display standard (see col. 2, lines 54-60), wherein the decoder (12) is connected to a source outputting; and a timing generator (14) connected to an output of the decoder and to a source outputting a control signal (121) and to a source outputting a control signal corresponding to one of the plurality of display standards, wherein the timing generator outputs, to a display device, timing signals corresponding to an output of the decoder and the control signal (121).

Regarding claim 8, Shyu et al. discloses that the decoder includes a memory and a Multiplexor (19, see fig. 1, see col. 2, lines 54-60).

***Allowable Subject Matter***

4. Claims 4-5 and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed a liquid crystal display device with a multi-timing controller comprising a liquid crystal display panel having a display standard receiving a timing data inputted from the exterior thereof and a control signal corresponding to the display standard; a timing controller for latching and outputting the timing data inputted from the interface, and for generating and outputting timing signals for driving the liquid crystal display panel based on the control signal; and a driving circuit for receiving the timing signals outputted from the timing controller to display a picture corresponding to the display standard, wherein said timing controller includes a decoder, and a timing generator, wherein timing generation information corresponding to a plurality of display standards is stored by the decoder. The combination of Shyu et al. (US 5,486,868), Schiefer et al. (US 6,177,922) and Barshinger (US 5,049,864) show a similar system having multi-timing controller and a plurality of display standards is stored by a decoder. However, they fail to teach that the timing generator includes a first controller for generating the timing signal corresponding to the timing information selected from the decoder, a second, a third, a fourth, and a fifth controller for always equally keeping the polarity of the horizontal/vertical synchronizing signal as claims 4 and 9.

*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D. C. 20231

**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only).**

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



**ALEXANDER EISEN  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2600**

Kimnhung Nguyen  
September 10, 2005